De Anza College – Spring 2026

Math 2A-25 (CRN 44412) Differential Equations

Instructor: Lucian Sega, PhD

Class: Mondays and Wednesdays, 4:00 - 6:15 pm PST in room MLC 108

No class on Monday, May 25, 2026 (Memorial Day)

Email: segalucian@fhda.edu

Office Hours: Tuesdays 11:00 am -12:00 pm PST (zoom) or by appointment

Prerequisites

Math 1D or Math 1DH (with a grade of C or better)

Course Materials

- Textbook: De Anza College Openstax:
  https://math.libretexts.org/Courses/De_Anza_College/Introductory_Differential_Equations
- Instructor notes

Calculator

A graphing calculator (e.g TI-83/TI-84, TI-nspire CX CAS) is recommended.

Tips for Success

- Participate actively in class discussions and office hours
- Do not fall behind on assignments, work problems/practice every day

➢ Review old material constantly (brush up previous calculus courses)
➢ Make use of tutoring and online resources

Course Objectives

- Explore the development and classification of differential equations
- Construct differential equations models from social and natural sciences and engineering
- Apply analytical, quantitative, and numerical methods to solve first order differential equations including the existence and uniqueness theorem in the development of the methods and solutions
- Apply analytical methods to solve second and higher order linear differential equations and some special nonlinear equations and include the existence and uniqueness theorems in the development of the methods and solutions
- Solve systems of linear ordinary differential equations with constant coefficients
- Find power series solutions to linear ordinary differential equations with variable coefficients, initial value problems
- Use Laplace transforms to solve ordinary linear differential equations with constant coefficients, initial value problems

Student Learning Outcomes

- Construct and evaluate differential equation models to solve application problems
- Classify, solve, and analyze differential equation problems by applying appropriate techniques and theory

Homework and Quizzes

Homework problems will be assigned regularly and posted in canvas each week. The homework for an entire week is due by 11:59 pm PST on Monday of the following week. The homework problems will provide a good preparation for the midterms and final exam.

Quizzes will be given approximately once a week and will be similar to the homework and class examples. The quizzes are take-home, will be posted in canvas on Friday each week, and are due back by 11:59 pm PST on the following Monday. Please submit your solution files through Canvas for both homework and quizzes. **Late homework and quizzes will be given no credit and awarded a score of 0.**

Midterm Exams

There will be two one-hour in-class midterm exams:

- **Wednesday, April 29, 2026**
- **Wednesday, May 27, 2026**

Make-up midterms will only be given in **extraordinary** circumstances.

Final Exam: Wednesday, June 24, 2026, 4:00 - 6:00 pm in MLC 108

A mandatory comprehensive 2-hour long final exam will be given at the end of the quarter. The final exam must be taken on Monday, June 22, at the scheduled time. There is no make-up final exam.

Grading Policy

- Homework……………………15%
- Quizzes………………………15%
- Each midterm exam…………20%
- Final exam……………………30%

A+: 98-100	**B+**: 87-88	**C+**: 74-77	**F**:0-54
A: 92-97	**B**: 80-86	**C**: 65-73	
A-: 89-91	**B-**: 78-79	**D**: 55-64	

Attendance Policy

Students are expected to be present in class and check posted assignments in canvas regularly (I will not send reminders). **Students who are absent from class for more than 1.5 weeks may be dropped by the instructor.** If a student decides not to continue with the course, it is the student's responsibility to officially drop the course. Failure to do so may result in a grade of F for the course.

Last day to drop a course without a W: April 19, 2026

Last day to drop a course with a W: May 29, 2026

Academic Honesty Policy

Students are responsible for keeping themselves informed of the De Anza College Policy on Academic Integrity. Cheating will not be tolerated and may result in receiving a zero on the exam or an F for the course and being reported to the Dean of Students Office for possible disciplinary action.

https://www.deanza.edu/policies/academic-integrity.html

Accommodations for Students with Disabilities

Students with disabilities who believe that they may need accommodations in this course are encouraged to contact Disability Support Services (408-864-8753) or Educational Diagnostic Center (408-864-8839) as soon as possible to ensure that such accommodations are arranged in a timely fashion.

Student Learning Outcome(s):

• Construct and evaluate differential equation models to solve application problems.

• Classify, solve and analyze differential equation problems by applying appropriate techniques and theory.

Office Hours:

T	10:00 AM - 11:00 AM		Zoom
T	11:00 AM - 12:00 PM		Zoom
T	12:00 PM - 1:00 PM		Zoom